

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002002**Date Inspected:** 23-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 2300**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	NA			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M, Orthotropic Box Girders (OBG) and Tower, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 Tower Skin Plate	NA	NA	Weld Joint Preparation

New Tower Shop Bay 1: Caltrans QA Inspector observed two workers for ZPMC grinding and preparing the root weld pass for magnetic particle testing. The tower skin plates that are joined to from the splice weld joints are identified as SA16, P149, P151, P150, P123, P124 and P661. The splice welds are identified as SSD1-SA16 F/G- 1, SA8, 7A, 3, 109A, 110 and 112A. That forms one continuous weld. Caltrans QA observed, American Bridge/Fluor (ABF) inspector, Mr. Wei Jian Bo monitoring the activities at the work station. ZPMC QC Inspector, Mr. Li Xiu Yang stated that after the preparation of the root pass weld, ZPMC will magnetic particle test the weld for soundness. Caltrans QA witnessed ZPMC QC magnetic particle testing of the root pass weld and appeared to be in compliance with contract requirements. The following digital picture illustrates the preparation of the root pass weld.

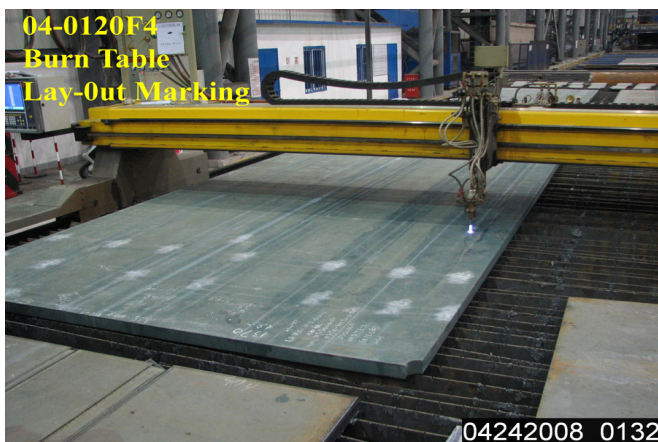
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|---|------------------|----|----|--------------------|
| 2 | Tower Skin Plate | NA | NA | Burn Table Lay-Out |
|---|------------------|----|----|--------------------|

New Tower Shop Bay 1: Caltrans QA observed the laying out of lay-out lines at the ZPMC burn table. The burn table gantry is equipped with a device, attached in tandem to the cutting nozzle with indelible ink marking system that transposes the marked line onto the surface and the dimensional location of the marking, computer generated. The tower plates observed being layed out are identified as SA151 (S), SA117 (S) and P14 (S). The following digital picture illustrated the burn table and the laying-out of lay-out lines.



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|---|-------------|----|----|-------------|
| 3 | Tower Plate | NA | NA | Weld Bevels |
|---|-------------|----|----|-------------|

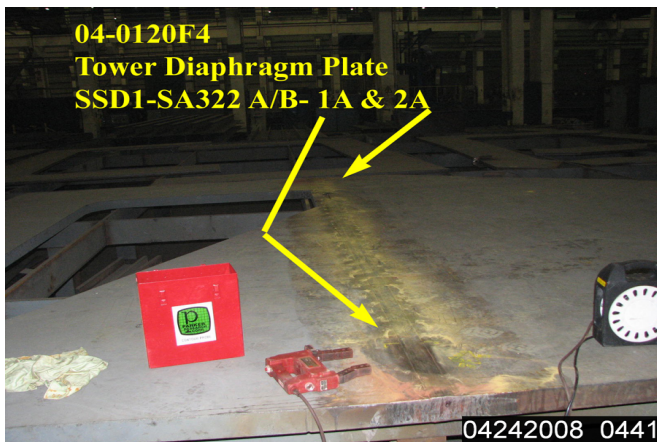
New Tower Shop Bay 1: Caltrans QA observed the beveling of the skin plate double bevels at the ZPMC horizontal milling machine. The tower skin plate is identified as P322. Caltrans QA met with mill operator at the workstation and verified the machined bevels per work instructions at the workstation. These dimensions were referenced to the approved drawing and were in conformance with the dimensional requirements. The following digital picture illustrates horizontal mill and plate beveling.

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|---|-----------------------|----|----|-------|
| 4 | Tower Diaphragm Plate | NA | NA | QA-MT |
|---|-----------------------|----|----|-------|
- Bay 4: Caltrans QA performed magnetic particle testing (MT) per ZPMC notification of witness inspection dated April 23, 2008. The subassembly is identified as tower diaphragm plate SA322 A/B, welds 1A & 2A splice weld reinforcement. Caltrans observed that ZPMC QC had inspected the weld and identified the weld as QC accepted. Caltrans QA MT coverage was approximately 10% and performed in conformance with the contract specifications. See Caltrans Magnetic Particle Test Report (TL-6028) dated April 23, 2008 for additional information. The following digital picture illustrates diaphragm plate MT inspection.



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler, Mike	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
